

REMARKS/ARGUMENTS

In view of the Examiner's "Response to Arguments," applicants have amended claim 1 to state expressly that the heat exchanger is disposed **directly** beneath the annular flange. This clearly distinguishes over the Japanese reference held against the claims and has the advantage previously described.

Also, in contrast to JP '619's flow conduit 7, annular conduit 14 starts from an **outer** circumference of the guide apparatus and **not** from its **inner** circumference. Therefore, deflection slide 18 encloses the guide apparatus 5, i.e. the annealing base, while slide 10 of JP '619 is arranged in annular gap 7 within the annealing base. Because of the arrangement of annular conduit 14 and slide 18 associated therewith on the outside of the guide apparatus, heat exchanger 11 is disposed directly beneath annular flange 9 of protective hood 8.

As previously pointed out, JP '629A has an annular cooling chamber with a heat exchanger 8 is disposed the annealing base. This cooling chamber is connected to a pressure side of a radial blower by an annular flow conduit 7, between blade wheel 4 and guide apparatus 5. An axially displaceable slide 10 is arranged in the flow conduit and can be moved into the

pressure-side flow path of the radial blower to guide the gas stream coming from the protective hood 3 over the cooling chamber. The latter is in flow connection with the protective hood through an outer annular gap 9 between the guide apparatus of the radial blower and the protective hood. When the slide is lowered, the flow conduit is closed so that the axially moving protective gas is circulated by the blade wheel of the radial blower through the guide apparatus in the protective hood. To cool the protective gas, the slide is lifted, which causes the protective gas to be deflected downwardly into the cooling chamber. Since the annealing base must have a perforated bottom, the axial arrangement of the flow conduit disadvantageously affects the carrying capacity of the annealing base. In addition, the deflection of the protective gas into the cooling chamber produces unfavorable flow conditions because the slide must be arranged where the protective gas has the highest output velocity from the blade wheel. Thus, the apparatus of JP '619 has all the disadvantages the present invention overcomes. Thus, the reference cannot suggest to a person of ordinary skill in the art to improve a hood-type annealing furnace in the manner set forth in claim 1 to obtain a favorable protective gas cooling without disadvantageously affecting the construction of the annealing base.

Applicants obtain this result by disposing heat exchanger 11 directly beneath annular flange 9, providing the flow conduit as an annular conduit 14 starting from an outer circumference of guide apparatus 5 and being concentric to annular gap 12, and an annular deflection slide 18 which encloses the guide apparatus on the outside. Nothing like this is suggested by the reference.

A sincere effort having been made to overcome all grounds of rejection, favorable reconsideration and allowance of claims 1 to 3 are respectfully solicited.

Respectfully submitted,

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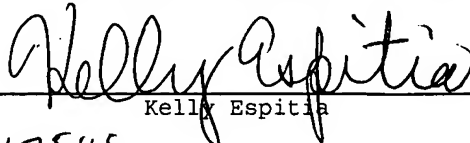


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